



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/468,155

12/21/1999

ROBERT S. GRANT

15-IS-5295

3289

7590

09/06/2005

RONALD E LARSON
MCANDREWS HELD & MALLOY LTD
500 W MADISON STREET 34TH FLOOR
CHICAGO, IL 60661

EXAMINER

PATEL, SHEFALI D

ART UNIT

PAPER NUMBER

2621

DATE MAILED: 09/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/468,155	Applicant(s) GRANT ET AL.	
	Examiner Shefali D. Patel	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment was received on January 24, 2005.
2. Claims 17-20 are newly added; claims 1-20 are pending in this application.

Response to Arguments

3. Applicants' arguments, see Remarks on pages 12-14 regarding *Inherency under section II*, filed on January 24, 2005, have been fully *considered* and are *persuasive*.
4. Applicants' arguments filed on January 24, 2005 (Remarks on pages 8-12 under *section I*) with regards to the combination using reference Killcommons have been fully considered but they are *not persuasive*.

Applicant states that "Killcommons, however, does not teach, not suggest, a "second interface unit located at a send location and arranged to store second stored image data of the second patient on the second image storage unit in response to the second imaging data and to store second stored identification data on the server located at the first location in response to the second identification data," as recited, for example, in claim 1."

Please note, as disclosed in the previous office action, a second interface unit (Figures 2A-2D, Data Interface (DI) 22) located at the second location and arranged to store second stored imaging data on the second image storage unit in response to the first imaging data (Figures 2A-2D, Storage Unit 30. Killcommons system is web-based and therefore accessible by multiple remote users as shown in Figure 1, Elements 50 (First User Unit) and 80 (Second User Unit). Also, see col. 7 lines 52-65 and further on col. 8 for how the DI 22 for server 20 for second user 80 is disclosed to receive newly acquired data (i.e., different than the first interface unit DI for server 20 for first user 50). Killcommons as seen in Figure 1 discloses first modality 12 coupled with the server 20 with second user 80 and second modality 16

Art Unit: 2621

coupled to user 50 communicating to the same server 20. The server 20 discloses separate interface units 22, user interface 34, and storing unit 30.

5. Applicants' arguments with respect to claims 1-16 (see Remarks on pages 8-14 filed on January 24, 2005) have been considered but are moot in view of the new ground(s) of rejection. Please note that the arguments regarding the reference by Antognini et al (US 5,649,185) and the combination thereof (page 10) and the inherency arguments in section II are moot in view of new ground(s) of rejection under Heck (US 6,317,743).

Specification

6. The disclosure is objected to because of the following informalities: On page 3 line 18, page 4 line 1, 15, 21 and so on discloses "ISU 50". However, applicants' do not disclose the full form of ISU as they do for CT (computer tomography, page 3 line 7) and IMS (information management server, page 3 lines 15-16), for example. The examiner is aware of ISU being shorthand for "Image Storage Unit". For formality matters, please amend the specification, without adding any new matter, the full form of ISU.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-4, 6-12 and 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Killcommons et al. (hereinafter, "Killcommons"), U.S. 6,424,996 in view of Heck (US 6,317,743).

With regards to claim 1 Killcommons discloses:

a network extending between first and second locations (col. 7 lines 52-54);

Art Unit: 2621

a **single server** (Figure 1, Server 20) located at the first location and connected to facilitate transfer of data between the first image storage unit and the second image storage unit through the network (Figures 2A-2D; Column 7, Lines 7-10. Figures 2A-2D depict configurations that can be networked together.);

a **first imaging device** (Modality 12, Column 7, Lines 3-6) located at the first location and connected to generate for transmission on the network first imaging data resulting from a first patient and first identification data identifying the first imaging data (Figures 1, 2A-2D; Column 5, Lines 6-31, Patient Histories; Column 7, Lines 44-67, Column 8, Lines 1-9);

a **first interface unit** (Figures 2A-2D, Data Interface 22) located at the first location and arranged to store first stored imaging data on the first image storage unit in response to the first imaging data (Figures 2A-2D, Storage Unit 30);

a **second imaging device** located at the second location (Figure 1, Second Modality 16; Column 7, Lines 4-6) and connected to generate for transmission on the network second imaging data resulting from a second patient and first identification data (Patient Histories, Column 5, Lines 27-31) identifying the first imaging data (Figures 1, 2A-2D; Column 5, Lines 6-31, Patient Histories; Column 7, Lines 44-67, Column 8, Lines 1-9);

a **second interface unit** (Figures 2A-2D, Data Interface 22) located at the second location and arranged to store second stored imaging data of the second patient on the second image storage unit in response to the first imaging data (Figures 2A-2D, Storage Unit 30. Killcommons system is web-based and therefore accessible by multiple remote users as shown in Figure 1, Elements 50 (First User Unit) and 80 (Second User Unit);

a **first workstation** located at the first location (Figure 1, First User Unit, Element 50; Column 11, Lines 4-7 and 18-23) and connected to create a first image in response to the first stored image data (Figure 1, Modality 12 or 16), to create a second image in response to the second stored image data, to

Art Unit: 2621

view said first and second identification data in the server through said network (Figures 1 and 2A-2D; Column 5, Lines 17-22) and to transmit at least a first request (Column 4, Lines 31-67) for the second stored image data from the second image storage unit resulting in transfer of the second stored image data from the second image storage unit so that said second image can be created at the first workstation (Figures 1, 2A-2D and 4, Storage Unit 30 in Server 20 or Remote Users; Column 5, Lines 10-22); and a second workstation located at the second location (Figure 1, Second User Unit, Element 80; Column 11, Lines 4-7 and 18-23) and connected to create a third image in response to the first stored image data (Figure 1, Modality 12 or 16; Figure 4; Column 13, Lines 35-51, Radiology Images 75), to create a fourth image in response to the second stored image data, to view said first and second identification data in the server through said network (Figures 1 and 2A-2D; Column 5, Lines 17-22) and to transmit at least a second request (Column 4, Lines 31-67) for the first stored image data from the first image storage unit resulting in transfer of the first stored image data from the first image storage unit so that said first image can be created at the first workstation (Figures 1, 2A-2D and 4, Storage Unit 30 in Server 20 or Remote Users; Column 5, Lines 10-22).

The versatile system taught by Killcommons is a web-based system implemented to facilitate manipulation of plurality of images stored in different remote locations and the capability of simultaneous retrieving, viewing and processing of medical images by experts in remote locations to assist in the diagnosis and treatment of distant patients (Figures 1, 2A-2B and 4; Column 7, Lines 10-14 and 61-65, and other portions recited above).

Although Killcommons discloses interface unit that is separate for each individual server in it's embodiment, Killcommons does not explicitly disclose a first interface unit to store first stored identification data on the server located at the first location in response to the first identification data and a second interface unit to store second stored identification data on the server located at the first location in response to the second identification data.

However, Heck discloses this with respect to Figure 2, col. 2 lines 44 to col. 3 lines 1-50. Heck discloses a server 12 and client computers 11(n). According to Heck, "Typically, the server include large-capacity mass storage devices which can store copies of programs and data which are available for retrieval by the client computer over the communication link 13 for use in their processing operations, From time to time, a client computer system 11(n) may also store data on the server computer 12, which may be later retrieved by it (the client computer that stored the data) or other client computers for sue in their processing operations." This is conventional in the art of networking. This is same as a client computer (located at the second location in the second interface unit) requesting and/or transferring information to the server (location at the first location in the first interface unit).

Killcommons and Heck are combinable because they are from the same field of endeavor, i.e., networking system. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Heck with Killcommons. The motivation for doing so is to retrieval efficient network management information from various locations in the network to a single location that serves as a management information server as taught by Heck at col. 1 lines 63-67. Therefore, it would have been obvious to combine Heck with Killcommons to obtain the invention as specified in claim 1.

With regard to **claim 2** Killcommons discloses network comprising a high-speed network (Column 1, Lines 35-37).

With regard to **claim 3** Killcommons discloses network comprising an ATM (Column 8, Lines 5-7).

With regard to **claim 4** Killcommons discloses network comprising a slow speed network (ISDN, Column 10, Lines 60-66. The Examiner is interpreting slow speed to be less than 155 Mbytes/s since the disclosure defines high speed to be at least 155 Mega bytes) and wherein said apparatus further comprises a first image transfer server located at said first location and a second image transfer server located at the

Art Unit: 2621

second location (Figures 2A-2D; Column 10, Lines 46-57), the first and second image transfer servers being connected to transfer the first stored image data to the second image storage unit through the network and to transfer the second stored image data to the first image storage unit through the network (Figures 1, 2A-2D, Server 20).

With regard to **claim 6** Killcommons discloses a radiology information system wherein a portion of the first identification data is provided by the radiology information system (Column 3, Lines 58-61). Killcommons annotation data would clearly include some identification data that is input at the modality. See Column 6, Lines 65-67).

With regard to **claim 7** Killcommons discloses the first imaging device comprising a computed Tomography unit (Column 7, Lines 25-26).

With regard to **claim 8** Killcommons discloses the first imaging device comprising a magnetic resonance imaging device (Column 7, Line 25).

With regards to **Claims 9-12 and 14-16** arguments analogous to those presented for Claims 1-4 and 6-8 above, respectively.

With regard to **claim 17** Killcommons discloses the first and second identification data including patient's name as seen in Figure 4 (as Buxton, Steven).

With regard to **claim 18** Killcommons discloses first and second identification data including identification number identifying the stored imaging data at col. 13 lines 30-40 by way of index numbers.

Claim 19 recites identical features as claim 17. Thus, arguments similar to that presented above for claim 17 is equally applicable to claim 19.

Claim 20 recites identical features as claim 18. Thus, arguments similar to that presented above for claim 18 is equally applicable to claim 20.

Art Unit: 2621

9. Claims 5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Killcommons et al. (hereinafter "Killcommons") US 6,424,996 in view of Heck US 6,317,743 and further in view of Computer Dictionary, Third Edition, Microsoft Press, 1997, ISBN: 1-57231-446-X, Page 462.

With regards to **claim 5** Killcommons discloses a variety of connection possibilities (Figure 3; Column 10, Lines 60-66). However, Killcommons does not specifically disclose a T1 connection. The Computer Dictionary teaches that T1 connections are well known (Page 462, Definition of T-carrier). AT&T introduced T-carrier service in 1993 which is defined by 4 levels: T1, T2, T3 and T4. Therefore, Computer Dictionary teaches: wherein the network comprises a T-1 telephone line (Page 462). It would have been obvious to one of ordinary skill in the art to use a T1 line to network the various computers on a T-carrier system to increase transmission capabilities of a system as taught by Killcommons and Heck to facilitate using off-the shelf equipment thereby reducing the cost of implementing a telemedicine system.

Claim 13 recites identical features as claim 5. Thus, arguments similar to that presented above for claim 5 is equally applicable to claim 13.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2621

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

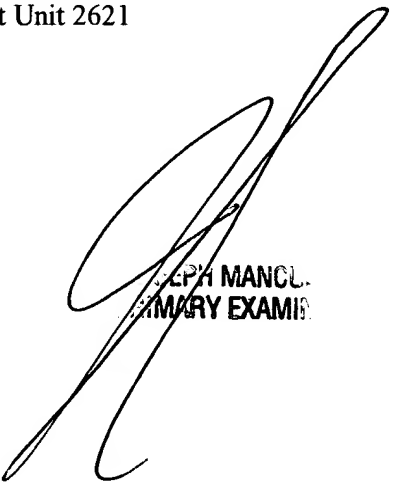
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shefali D. Patel whose telephone number is 571-272-7396. The examiner can normally be reached on M-F 8:00am - 5:00pm (First Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on (571) 272-7695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shefali D Patel
Examiner
Art Unit 2621

August 11, 2005



JOSEPH MANCUSO
PRIMARY EXAMINER